WHAT IS CLAIMED IS:

1. A base station system adapted to provide simultaneous reuse of channels at said base station, said system comprising:

a multiple narrow beam antenna system adapted to provide isolation of signals radiated therein, wherein sectors of said base station are associated with different ones of said antenna beams;

base station radio circuitry adapted for providing a plurality of discrete simultaneous communications using a first communication channel in different ones of said sectors; and

circuitry providing controllable coupling of said base station radio circuitry to said multiple narrow beam antenna system.

2. The system of claim 1, wherein a different sector control channel is associated with each sector of said base station.

3. The system of claim 1, wherein a sector control channel is associated with each sector of said base station.

4. The system of claim 3, wherein said sector control channel is a multiple beam antenna access channel adapted for use in identifying a most preferred antenna beam of said multiple narrow beam antenna system for use with each of a plurality of remote stations in communication with said base station.

5. The system of claim 4, wherein said sector control channel includes a forward link data packet comprising synch bits, overhead information, RSSI information, number of antenna beams, current antenna beam, and directed message

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6. The system of claim 4, wherein said sector control channel includes a reverse link data packet comprising a leading and trailing guard time, synch bits, RS identification information, and report message.

7. The system of claim 1, wherein said controllable coupling circuitry is adapted to provide independently controllable coupling of each one of said plurality of discrete simultaneous communications using said first communication channel to ones of said antenna beams.

8. The system of claim 7, wherein said controllable coupling circuitry is adapted to couple each one of said plurality of discrete simultaneous communications using said first communication channel to any one antenna beam of a sector associated with said each one of said plurality of discrete simultaneous communications.

9. The system of claim 1, wherein said controllable coupling circuitry is operable to redefine sectors of said base station by associating different ones of said antenna beams therewith.

10. The system of claim 1, wherein at least a sequence or combination of coupling antenna beams of said multiple narrow beam antenna system to said base station radio equipment by said controllable coupling circuitry is selected to optimize system data throughput.

11. The system of claim 10, wherein said at least a sequence or combination is determined at least in part in consideration of mutually exclusive antenna beam pairs with respect to simultaneous use of said first communication channel.

12. The system of claim 10, wherein said at least a sequence or combination is determined at least in part in consideration of antenna beam pairs providing reduced signal quality with respect to simultaneous use of said first communication channel.

13. The system of claim 12, wherein said determination is made at least in part through a comparison of a data throughput available using antenna beam pairs providing said reduced signal quality and a data throughput available using an antenna beam of a mutually exclusive antenna beam pair.

14. The system of claim 12, wherein said base station radio circuitry is adapted to communicate different information densities as a function of available signal quality of a wireless communication link.

15. The system of claim 14, wherein said different information densities are provided at least in part using spread spectrum communications with variable spreading factors.

16. The system of claim 14, wherein said different information densities are provided at least in part using QAM with multiple modulation values.

17. The system of claim 1, wherein said first channel is a time division duplex channel including a forward link portion and a reverse link portion, wherein said forward link portion and said reverse link portion are of different durations for a first remote station in communication with said base station and a second remote station in communication with said base station.

18. The system of claim 1, wherein said first channel is a frequency division channel.

19. The system of claim 1, wherein said first channel is a time division channel.

20. The system of claim 1, wherein said first channel is a code division channel.

21. The system of claim 1, wherein said multiple narrow beam antenna system is a fixed multiple beam antenna system.

22. The system of claim 1, wherein said multiple narrow beam antenna system is an adaptive array antenna system.

23. The system of claim 1, wherein said multiple narrow beam antenna system provides a plurality of substantially non-overlapping antenna beams.

24. The system of claim 1, wherein said multiple narrow beam antenna system provides a plurality of substantially overlapping antenna beams.

25. A method for providing simultaneous reuse of channels at a base station of a wireless communication network, said method comprising the steps of:

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coupling multiple narrow antenna beams adapted to provide isolation of signals radiated therein to base station radio circuitry through switchable circuitry;

determining a resource utilization solution to optimize data throughput in communications between said base station and a plurality of remote stations, wherein said resource utilization solution dynamically determines particular antenna beams and channels for which simultaneous communications may optimally occur; and

operating said switchable circuitry to achieve said resource utilization solution.

26. The method of claim 25, further comprising the step of:

defining a plurality of sectors associated with said base station radio circuitry, wherein each sector includes different ones of said antenna beams, wherein said simultaneous use of said channels is use of said channel at one sector of said plurality and reuse of said channel at another sector of said plurality.

27. The method of claim 26, further comprising the step of:

redefining said plurality of sectors to provide substantially balanced traffic loading among ones of the sectors in response to a change in traffic loading.

28. The method of claim 26, further comprising the step of:

redefining said plurality of sectors to provide at least a threshold level of a communication attribute selected from the group consisting of:

an interference level;

a signal quality; and

a data throughput.

29. The method of claim 25, wherein said resource utilization solution determining step comprises the step of:

identifying mutually exclusive antenna beam pairs at said base station.

30. The method of claim 25, wherein said resource utilization solution determining step comprises the step of:

identifying mutually exclusive antenna beam pairs as between a plurality of base stations.

31. The method of claim 25, wherein said resource utilization solution determining step comprises the step of:

identifying antenna beam pairs for which reduced communication throughput is possible when utilized simultaneously.

32. A wireless communication system adapted to provide reuse of channels at a base station, said system comprising:

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at least one base station comprising:

a multiple narrow beam antenna system adapted to provide wireless communications to remote stations to the exclusion of other remote stations, wherein multiple ones of said antenna beams define sectors of said base station and said provision of wireless communications to the exclusion of other remote stations includes exclusion of other remote stations disposed in a same sector; and

base station radio circuitry adapted for wireless communication with a number of remote stations utilizing a first communication channel simultaneously in different ones of said sectors; and

a plurality of remote stations, wherein said plurality of remote stations include said number of remote stations, ones of said plurality of remote stations comprising:

remote station radio circuitry adapted for wireless communication utilizing said first communication channel.

33. The system of claim 32, further comprising:

circuitry providing controllable coupling of said base station radio circuitry to said multiple narrow beam antenna system.

34. The system of claim 33, wherein said controllable coupling circuitry is adapted to provide independently controllable coupling of multiple discrete signals of said first channel to ones of said antenna beams.

35. The system of claim 34, wherein said controllable coupling circuitry is adapted to couple each one of said multiple discrete signals of said first channel to any antenna beam of a sector associated with said each one of said multiple discrete signals.

36. The system of claim 33, wherein said controllable coupling circuitry is adapted to couple ones of said antenna beams to different portions of said base station radio circuitry to thereby provide adjustable sector boundaries.

37. The system of claim 33, wherein said controllable coupling circuitry includes a switch matrix.

38. The system of claim 32, further comprising:

a controller adapted to optimize system data throughput through a determination with respect to said utilizing said first communication channel simultaneously.

39. The system of claim 38, wherein said determination is made at least in part in consideration of mutually exclusive antenna beam pairs with respect to simultaneous use of said first communication channel.

40. The system of claim 39, wherein said mutually exclusive antenna beam pairs are antenna beam pairs of said base station.

41. The system of claim 39, wherein said mutually exclusive antenna beam pairs are antenna beam pairs of a plurality of base stations of said wireless communication system.

42. The system of claim 39, wherein information regarding said mutually exclusive antenna beam pairs is determined empirically.

43. The system of claim 42, wherein said empirical determination is made during an out of service condition of said wireless communication system.

44. The system of claim 42, wherein said empirical determination is made during an in service condition of said wireless communication system.

45. The system of claim 38, wherein said determination is made at least in part in consideration of antenna beam pairs providing reduced signal quality with respect to simultaneous use of said first communication channel.

46. The system of claim 45, wherein said determination is made at least in part through a comparison of a data throughput available using antenna beam pairs providing said reduced signal quality and a data throughput available using an antenna beam of a mutually exclusive antenna beam pair.

47. The system of claim 45, wherein said base station radio circuitry is adapted to communicate different information densities as a function of available signal quality of a wireless communication link.

48. The system of claim 47, wherein said different information densities are provided by a modulation technique selected from the group consisting of:

QAM;

PSK; and

QPSK.

49. The system of claim 47, wherein said different information densities are provided by the use of variable rate codes.

50. The system of claim 32, wherein said base station radio circuitry is also adapted for wireless communication with a number of remote stations utilizing a second communication channel simultaneously in different ones of said sectors.

51. The system of claim 32, wherein ones of said plurality of remote stations further comprise:

a multiple narrow beam antenna system adapted to provide wireless communications to base stations to the exclusion of other base stations.

52. The system of claim 32, wherein said first channel is a time division duplex channel including a forward link portion and a reverse link portion.

53. The system of claim 52, wherein said forward link portion and said reverse link portion are of different durations for a first remote station of said number of remote stations and a second remote station of said number of remote stations.

54. The system of claim 32, wherein said first channel is a frequency division channel.

55. The system of claim 32, wherein said first channel is a time division channel.

56. The system of claim 32, wherein said first channel is a code division channel.

57. A wireless communication system adapted to provide reuse of channels at a base station, said system comprising:

at least one base station comprising:

a multiple narrow beam antenna system adapted to provide wireless communications to remote stations to the exclusion of other remote stations, wherein multiple ones of said antenna beams define sectors of said base station and said provision of wireless communications to the exclusion of other remote stations includes exclusion of other remote stations disposed in a same sector;

base station radio circuitry adapted for wireless communication with a number of remote stations utilizing a first communication channel simultaneously in different ones of said sectors;

circuitry providing controllable coupling of said base station radio circuitry to said multiple narrow beam antenna system; and

a controller coupled to said controllable coupling circuitry adapted to optimize system data throughput through a determination with respect to said utilizing said first communication channel simultaneously;

a plurality of remote stations, wherein said plurality of remote stations include said number of remote stations, ones of said plurality of remote stations comprising:

remote station radio circuitry adapted for wireless communication utilizing said first communication channel.

58. The system of claim 57, wherein said controller controls said controllable coupling circuitry to couple ones of said antenna beams to different portions of said base station radio circuitry to thereby provide adjustable sector boundaries.

59. The system of claim 56, wherein said determination is made at least in part in consideration of mutually exclusive antenna beam pairs with respect to simultaneous use of said first communication channel.

60. The system of claim 59, wherein said mutually exclusive antenna beam pairs are antenna beam pairs of said base station.

61. The system of claim 59, wherein said mutually exclusive antenna beam pairs are antenna beam pairs of a plurality of base stations of said wireless communication system.

62. The system of claim 57, wherein said determination is made at least in part in consideration of antenna beam pairs providing reduced signal quality with respect to simultaneous use of said first communication channel.

63. The system of claim 62, wherein said determination is made at least in part through a comparison of a data throughput available using antenna beam pairs providing said reduced signal quality and a data throughput available using an antenna beam of a mutually exclusive antenna beam pair.

64. The system of claim 62, wherein said base station radio circuitry is adapted to communicate different information densities as a function of available signal quality of a wireless communication link.